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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,309	09/28/2001	Dirk Kranendonk	25098A	5049

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OWENS CORNING
2790 COLUMBUS ROAD
GRANVILLE, OH 43023

EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/966,309	Applicant(s) KRANENDONK, DIRK	
	Examiner Norca L. Torres-Velazquez	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 22-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 22-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 26, 2005 has been entered.

Response to Arguments

2. Applicant's arguments filed October 26, 2005 have been fully considered but they are not persuasive.

a. Applicants have amended independent claim 1 to further recite the limitation *"covering said outer side of said non-woven fiber tissue or mat in a continuous fashion to reduce significantly the porosity of the wall covering"*. It is noted herein that the language indicating that the porosity of the wall covering is reduced significantly is indefinite because the claim is comparing to what is the porosity is reduced... is Applicant trying to refer to a reduction of the porosity of the non-woven fiber tissue or mat instead? The independent claim 1 further recites the limitation *"said continuous coating being free of random discontinuities that increase porosity and which are susceptible to creating visible irregularities the surface is roller painted"*. It is noted that there is no expressed support in the specification for such limitation. Therefore, it is considered new matter.

b. It is noted that paragraph [0006] of the published Specification of the present invention discloses that the polymeric coating covers the surface of the mat, thereby reducing *the porosity of the mat* significantly. Not the porosity of the wall covering as claimed. Further, the Specification describes that the polymeric material also has a degree of gas permeability to allow moisture to escape from underneath.

c. Applicants argue that Jackson does not disclose, teach or otherwise suggest a coating that covers the non-woven mat in a continuous fashion and free of random discontinuities, as shown in Applicant's Figure 2. Applicants indicate that the Jackson reference discloses a material having a surface with intentionally formed "randomly distributed discontinuities" and argue that these discontinuities are disadvantageous from the standpoint that they would more readily receive any paint roller-applied to the surface and magnify its imperfect, or "irregular" nature.

As stated before by the Examiner, the Jackson reference provides a breathable or moisture permeable wall covering having a porous polymeric ply, which is fused to and supported by a nonwoven substrate ply. The porous polymeric ply as a smooth, continuous aesthetically pleasing appearance, while simultaneously achieving a moisture vapor permeability which prevents moisture from being trapped on or within a wall to which the wall covering is applied. More specifically, the porous polymeric ply has a substantially macroscopic-continuity wherein a plurality or multiplicity of miniature or microscopic discontinuities or holes are randomly distributed. (Col. 2, lines 19-32) It is the Examiner's interpretation that the claimed "random discontinuities" are macroscopic discontinuities that would be visible to the unaided eye which are different from the

microscopic discontinuities of the Jackson reference. As noted above, the polymeric material of the present invention also has a degree of gas permeability to allow moisture to escape from underneath, therefore, it is the Examiner's position that microscopic discontinuities such as those of Jackson would be recognized in the present invention since both reference are directed to provide a polymeric material coating that provides gas permeability. While Figure 2 of the present application does not show "holes" or "pores", it is noted that the presence of certain porosity is recognized and desirable by the disclosure of the present application. (Refer to [0033]) The rejections over JACKSON are maintained herein since the microscopic discontinuities of the polymeric material of the reference do not affect the continuity or smoothness of its outer or exposed surface when looked by the unaided eye. (Jackson, Col. 2, lines 32-34) Therefore, "visible irregularities" would not be created when roller painted since the discontinuities in the polymeric material are microscopic and are not visible by the unaided eye.

The burden is shifted to Applicants to show that the structure of Jackson is different to the present invention.

d. With regards to the combination of Jackson and Penz et al. Applicants argue that such combination is not proper. It is noted herein that the Penz et al. reference is directed to glass matt reinforced thermoplastics suitable for the production of paintable parts and teaches the inclusion of fillers to enhance paint adhesion. It is the Examiner's interpretation that the combination of the references is proper as they both avoid having "smooth" surfaces; for example, to the degree that building up of a paint layer is not disturbed in any way by glass fibers protruding out of the surface as disclosed by Penz et

al. (Refer to Col. 1, lines 64 – Col. 2, lines 1-4) With regards to creating a non-smooth outer surface as claimed, it is the Examiner's interpretation that the degree of "smoothness" claimed in the present invention is that obtained by the inclusion of the fillers taught by Penz et al. that produces a surface with enhanced paint adhesion.

e. With regards to arguments indicating that a plasticizer is excluded by the plain terms of claim 35 (or claims 13 and 38), it is noted that claim 35 claims: 45 by weight of HDPE, 5 by weight titanium dioxide and 50 by weight of a dispersion. The dispersion comprises a ground calcium carbonate and ground titanium dioxide in high-density polyethylene. It is noted that the comprising language describing the dispersion does not preclude the inclusion of other materials. With regards to the claimed titanium dioxide, it is noted that Jackson teaches the use of pigments such as titanium oxide. It is the Examiner's position that titanium dioxide is a white pigment equivalent to titanium oxide, therefore, would have been an obvious modification. Further, it is noted that the prior art of MELBER et al. also teaches a similar dispersion.

f. With regards to arguments indicating that the hydroentangled nonwoven substrate of Jackson is a soft fabric versus a rigid nonwoven, it is noted herein that the term soft means smooth or delicate in texture, grain or fiber. (as defined in Merriam-Webster's Collegiate Dictionary, Tenth Edition) It is the Examiner's interpretation that the hydro entangled structure of the prior art is made from mineral fibers known for its rigidity and the fact that the reference refers to a soft fabric does not preclude that it forms a rigid structure. A material can be rigid while being soft (i.e. having a smooth texture).

g. Arguments regarding a treatment used in the processing of the material to provide a particular surface tension are not persuasive as the present claims are product claims that do not require such particular process step. The Examiner maintains the rejection that the claimed property of surface tension would be inherent to the product of the prior art as it meets all the structural limitations of the present invention.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants have amended independent claim 1 to further recite the limitation “*said continuous coating being free of random discontinuities that increase porosity and which are susceptible to creating visible irregularities the surface is roller painted*”. It is noted that there is no expressed support in the specification for such limitation.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is noted herein that the language indicating that the porosity of the wall

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covering is reduced significantly is indefinite because the claim is comparing to what is the porosity is reduced... is Applicant trying to refer to a reduction of the porosity of the non-woven fiber tissue or mat instead?

7. Claims 8 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because the Applicant has not provided copy of procedure used to measure the water vapor transmission rate by the DIN Standard 52615.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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8. Claims 1, 36, 40, 3-5, 9, 11-12, 22-23, 25-27, 31 and 33-34 are rejected under 35 U.S.C. 102(b) as being anticipated by JACKSON (US 5,876,551) and further evidenced by WO 95/07946 (Abstract).

JACKSON teaches a breathable, decorative wall-covering having a smooth, continuous, aesthetically appealing exposed surface which can be printed with a design or pattern having sharply defined edges, and having a relatively high moisture permeability. The wall covering includes a porous polymeric ply fused to a nonwoven substrate ply. The porous polymeric ply is formed by thermally fusing a plastisol coating. The plastisol coating is thick enough to allow the formation of a coating, which upon thermal fusion provides a polymeric ply having a smooth continuous appearance. Upon heating the plastisol coating to a temperature, which is sufficient to cause fusion of resins contained therein, a highly permeable polymeric ply having the appearance of smooth, continuous film is formed. (Abstract) The reference further teaches that suitable resins used in the plastisols generally include a variety of thermoplastic resins, which are capable of fusing and absorbing the plasticizer upon application of heat. (Column 4, lines 62-67) It is noted that the use of resins such as polyethylene in plastisol to produce a coating material is known in the art as evidenced by the abstract of WO 95/07946. Further, JACKSON teaches the incorporation of titanium oxide, among other components, in the plastisol. (Column 5, lines 27-37) It is noted that the plastisol described by JACKSON is a dispersion. With regards to claim 22 and 34, JACKSON further teaches that the plastisol coating is preferably applied at a coating weight of from about 47 grams per square meter to about 155 grams per square meter. (Column 5, lines 52-57) With regards to claims 11 and 12, JACKSON teaches the use of mineral fibers in the nonwoven and also teaches that the area weight of the nonwoven is from about 47 gsm to

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about 61 gsm). (Column 4, lines 32 and lines 59-61) JACKSON also teaches that the two ply composite wall covering generally have a moisture permeability of from about 25 perms to about 50 perms. (Column 6, lines 42-44)

It is the Examiner's interpretation that the plastisol taught by JACKSON will read on the presently claimed thermoplastic polymer coating since the plastisol contains thermoplastic resins in a dispersion. The nonwoven substrate ply is equated to the presently claimed nonwoven fiber tissue or mat.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2, 8, 30, 34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over JACKSON et al.

JACKSON et al. is silent with respect to the claimed surface tension of the coating surface tension and the water transmission rate. However, it is reasonable to presume that the claimed properties are inherent to the invention of JACKSON et al. Support for said presumption is found in the use of the same starting materials (i.e. fiber matt and thermoplastic polymer coating), like processes of making the articles (i.e., melting polymer of the matt), and the production of similar end-products (i.e., reinforced mineral fiber materials, etc...). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the presently claimed function of surface tension and water transmission rate would obviously have been provided as a result of the product of the JACKSON et al. reference. *Note*

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In re Best, 195 USPQ 433. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner, et al.* (CCPA) 186 USPQ 80

11. Claims 10, 13, 32, 35 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over JACKSON as applied above, and further in view of ISHII et al. (US 6,281,277 B1).

JACKSON et al. discloses the claimed invention except that it teaches the use of titanium oxide instead of titanium dioxide, ISHII et al. (US 6,281,277 B1) shows that titanium dioxide is an equivalent structure known in the art. Therefore, because these two pigments were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute titanium oxide for titanium dioxide.

12. Claims 6-7 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over JACKSON in view of ISHII et al. as applied above, and further in view of PENZ et al. (US 5,888,913).

PENZ et al. discloses glass matt reinforced thermoplastic and one of the object of their invention is to find glass matt reinforced thermoplastics with no insert visibility and that on the painted part satisfactory paint adhesion on the glass matt reinforcement thermoplastic surface is obtained without great expenditure. The reference teaches the addition of fine-particle, mineral fillers to enhance the paint adhesion. (Column 1, lines 64 – Column 2, lines 1-10)

The reference further teaches adding mineral fillers such as *talc*, chalk and barium sulfate at concentrations from 2 to 60% by weight to the thermoplastics. (Column 3, lines 14-18)

Since both JACKSON et al. and PENZ et al. are from the same field of endeavor, the purpose disclosed by PENZ et al. would have been recognized in the pertinent art of JACKSON et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the thermoplastic polymer coating and provide it with mineral fillers with the motivation of obtaining a satisfactory paint adhesion on the glass matt reinforced thermoplastics as disclosed by PENZ et al. (Above).

13. Claims 13, 35 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over JACKSON and ISHII et al. as applied above, and further in view of MELBER et al. (US 4,898,892).

MELBER et al. discloses a method for making an opaque coating comprising combining a film forming coating binder and a composite opacifier. The reference teaches the use of inorganic opacifier materials such as titanium dioxide and calcium carbonate. (Column 1, lines 36-45) On Table III, the reference teaches how the film thickness and volume of opacifier is necessary for 94% hiding. (Column 17, lines 6-23). With regards to claim 13, the claimed composition for the coating is known under the trademark product Papermatch as a dispersion of ground calcium carbonate and ground titanium dioxide in high density polyethylene and the prior art of reference teaches the use of these components, the ratio or ranges of concentration of these would be an obvious cause-effective variable that will depend on the intended refractive index of the opacifying component. (Refer to claims 1 and 3)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the coating material to contain titanium dioxide with the

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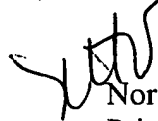
motivation of providing the coating with "hiding" as disclosed by MELBER et al. (Above and also refer to column 2, lines 24-26).

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4,246,311 to HIRST.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771

January 12, 2006